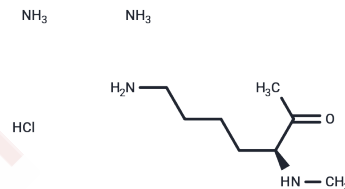


Poly-L-lysine hydrochloride

Chemical Properties

CAS No. :	26124-78-7
Formula:	(C ₆ H ₁₄ N ₂ O ₂ .ClH) _x
Molecular Weight:	228.77
Storage:	Keep away from moisture Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	Poly-L-lysine hydrochloride plays a key role in promoting cell attachment to solid substrates by enhancing the electrostatic interaction between the negatively charged ions present on the cell membrane and the surface of the culture substrate as a non-specific attachment factor. Poly-L-lysine hydrochloride is a peptide that at low concentrations Due to its cationic peptide nature, Poly-L-lysine hydrochloride is antimicrobially active. These properties make it an important component for enhancing cell adhesion, regulating phase separation kinetics and demonstrating antimicrobial activity.
Targets(IC50)	Antibacterial
In vitro	Poly-L-lysine, a food-grade antimicrobial peptide, interacts with proteins to form complexes, serving as potential carriers for the targeted delivery of agents. The interaction affinity was analyzed using electrostatic potential modeling of Poly-L-lysine, resulting in a three-dimensional phase boundary curve that delineates the complexation process into nano-scale formations and phase separation.

Solubility Information

Solubility	H ₂ O: 45.00 mg/mL (196.70 mM), Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3712 mL	21.856 mL	43.712 mL
5 mM	0.8742 mL	4.3712 mL	8.7424 mL
10 mM	0.4371 mL	2.1856 mL	4.3712 mL
50 mM	0.0874 mL	0.4371 mL	0.8742 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Archishman Ghosh, et al. Three archetypical classes of macromolecular regulators of protein liquid-liquid phase separation. *Proc Natl Acad Sci U S A*. 2019;116(39):19474-19483.

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Li Z, et al. Sustained delivery and expression of plasmid DNA based on biodegradable polyester, poly(D,L-lactide-co-4-hydroxy-L-proline). *J Control Release*. 2004;98(3):437-446.

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